

ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18 Stylesheet Version v18.0

> Title of Invention

Server and Multiple Sensor System for Monitoring Activity in a Shared Radio Frequency Band

Application Number:

10/717852

Confirmation Number:

1708

First Named Applicant:

Neil Diener Attorney Docket Number: Cognio109US

Art Unit:

2681

Search string:

(4839582 or 5608727 or 6084919 or 6418131 or 6385434 or 6229998 or 6351643 or 5093927 or 5142691 or 5355522 or 5276908 or 6332076 or 6349198 or 5144642 or 5907812 or 5745777 or 6336780 or 6275695 or 6169728 or 6141565 or 5809427 or 5610839 or 5608727 or 5574979 or 6256478 or 6374082 or 6499006 or 6317599 or 6442507 or 6229799 or 5850596 or 6307839 or 5655217 or 5889772 or 6031833 or 5636140 or 6295461 or 5732077 or 5864541 or 5428819 or 6167237 or 6374079 or 5636903 or 6212566

or 20030123420 or 20020086641 or

20020155811 or 20020142744 or 20020177446

or 20020050012 or 20020019214 or

20020085503 or 20020154614 or 20010008837

or 20020077787 or 20020006799 or

20020111772 or 20030198200 or 20030198304

or 20030224741 or 20040023674 or 20040028003 or 20040028123).pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
4	1	4839582	1989-06-13	Fukaya et al.] —	324	77B
1	2	5608727	1997-03-04	Perreault et al] —	370	462
1	3	6084919	2000-07-04	Kleider et al.	A1	375	285
10	4	6418131	2002-07-09	Snelling et al.	B1	370	337
1	5	6385434	2002-05-07	Chuprun et al.	B1	455	11.1
بخيا						1)

1 61	6	6229998	2001-05-08	Hamdy et al.	В1	455	226.1
	7	6351643	2002-02-26	Haartsen	B1	455	450
	8	5093927	1992-03-03	Shanley		455	513
	9	5142691	1992-08-25	Freeburg		455	63.3
W	10	5355522	1994-10-11	Demange		455	62
	11	5276908	1994-01-04	Koohgoli et al		455	34.1
	12	6332076	2001-12-18	Shah et al.	•	455	423
	13	6349198	2002-02-19	Carlson et al.		455	63.1
	14	5144642	1992-09-01	Weinberg et al.		375	10
1	15	5907812	1999-05-25	Van De Berg		455	461
1//	16	5745777	1998-04-28	English et al.		375	228
	17	6336780	2002-04-02	Obhan		455	423
1	18	6275695	2002-08-14	Obhan		455	423
N	19	6169728	2002-01-02	Perreault et al.		370	235
V	20	6141565	2000-10-31	Feuerstein et al.		455	560
U	21	5809427	1998-09-15	Perreault et al.		455	513
1/1	22	5610839	1997-03-11	Karolak et al.		455	450
N	23	5608727	1997-03-04	Perreault et al.		370	462
N'	24	5574979	1996-11-12	West		455	63.1
	25	6256478	2001-07-03	Allen		455	63.1
\mathcal{U}	26	6374082	2002-04-16	Carlson		455	63.1
N.	27	6499006	2002-12-24	Rappaport et al		703	20
	28	6317599	2001-11-13	Rappaport et al		455	446
M	29	6442507	2002-08-27	Skidmore et al		702	186
N	30	6229799	2001-05-08	Caillerie et al		370	347
7	31	5850596	1998-12-15	Reynolds		455	63.1
1	32	6307839	2001-10-23	Gerszberg et al]	370	235
M	33	5655217	1997-08-05	Lamson		455	513
1/4	34	5889772	1999-03-30	Fischer et al		370	346
1/	35	6031833	2000-02-29	Fickes et al	Į	370	349
M	36	5636140	1997-06-03	Lee et al]	370	469
M	37	6295461	2001-09-25	Palmer et al	ļ	455,	557
M	38	5732077	1998-03-24	Whitehead		370	349
M	39	5864541	1991-01-26	Abu-Amara et al .	Į	370	253
M	40	5428819	1995-06-27	· Wang et al	<u> </u>	455	454
Á	41	6167237	2002-12-16	Rapeli	B1	455	63
	i .]	1	94,	il		

APP_ID=10717852

$ \mathcal{M} $	42	6374079	2002-04-16	Hsu	B1	455	11.1
	43	5636903	1997-12-09	Mahany]	395	200.58
	44	6212566	2001-04-03	Vanhoof et al	B1	709	230 ,

US Published Applications

Note: Applicant is not required to submit a paper copy of cited US Published Applications

						0 1 -1
Cite.No.	Pub. No.	Date	Applicant	Kind		Subclass
1	20030123420	2003-07-03	Sherlock	A1_	370	338
2	20020086641	2002-07-04	Howard	A1	455	67.1
3	20020155811	2002-10-24	Prismantas et al	_A1_	455	226.1
4	20020142744	2002-10-03	Okanoue et al	A1	455	226.1
5	20020177446	2002-11-28	Bugeja et al	A1	455	450
6	20020050012	2003-03-13	Black et al	A1	455	62
7	20020019214	2002-02-14	Brown et al	A1	455	67.11
8	20020085503	2002-07-04	Hulyalkar et al	A1	370	252
9	20020154614	2002-10-24	Jagger et al	A1	375	332
10	20010008837	2001-07-19	Takahashi	A1	455	403.
11	20020077787	2002-06-20	Rappaport et al	A1	702	188
12	20020006799	2002-01-17	Rappaport et al	A1	455	446
	20020111772	2002-08-15	Skidmore et al	A1_	702	186
14	20030198200	2003-10-23	Diener et al	A1	370	329
15	20030198304	2003-10-23	Sugar et al	A1	375	340
16	20030224741	2003-12-04	Sugar et al	A1	455	115.1
17	20040023674	2004-02-05	Miller	A1	455	462
18	20040028003	2004-02-12	Diener et al	A1	370	319
19	20040028123	2004-02-12	Sugar et al	A1	375	224
	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18	1 20030123420 2 20020086641 3 20020155811 4 20020142744 5 20020177446 6 20020050012 7 20020019214 8 20020085503 9 20020154614 10 20010008837 11 20020077787 12 20020006799 13 20020111772 14 20030198200 15 20030198304 16 20030224741 17 20040023674 18 20040028003	1 20030123420 2003-07-03 2 20020086641 2002-07-04 3 20020155811 2002-10-24 4 20020177446 2002-11-28 6 20020050012 2003-03-13 7 20020019214 2002-02-14 8 20020085503 2002-07-04 9 20020154614 2002-10-24 10 20010008837 2001-07-19 11 20020077787 2002-06-20 12 20020006799 2002-01-17 13 20020111772 2002-08-15 14 20030198304 2003-10-23 15 20030198304 2003-10-23 16 20030224741 2003-12-04 17 20040023674 2004-02-05 18 20040028003 2004-02-12	1 20030123420 2003-07-03 Sherlock 2 20020086641 2002-07-04 Howard 3 20020155811 2002-10-24 Prismantas et al 4 20020142744 2002-10-03 Okanoue et al 5 20020177446 2002-11-28 Bugeja et al 6 20020050012 2003-03-13 Black et al 7 20020019214 2002-02-14 Brown et al 8 20020085503 2002-07-04 Hulyalkar et al 9 20020154614 2002-10-24 Jagger et al 10 20010008837 2001-07-19 Takahashi 11 20020077787 2002-06-20 Rappaport et al 12 2002006799 2002-01-17 Rappaport et al 13 20020111772 2002-08-15 Skidmore et al 14 20030198200 2003-10-23 Dlener et al 15 20030198304 2003-10-23 Sugar et al 16 20030224741 2003-12-04 Sugar et al 17 20040023674 2004-02-05 Miller 18 20040028003 2004-02-12 Diener et al	1 20030123420 2003-07-03 Sherlock A1 2 20020086641 2002-07-04 Howard A1 3 20020155811 2002-10-24 Prismantas et al A1 4 20020142744 2002-10-03 Okanoue et al A1 5 20020050012 2003-03-13 Black et al A1 7 20020019214 2002-02-14 Brown et al A1 8 20020085503 2002-07-04 Hulyalkar et al A1 9 20020154614 2002-10-24 Jagger et al A1 10 20010008837 2001-07-19 Takahashi A1 11 20020077787 2002-06-20 Rappaport et al A1 12 2002006799 2002-01-17 Rappaport et al A1 13 20020111772 2002-08-15 Skidmore et al A1 14 20030198200 2003-10-23 Dlener et al A1 15 20030198304 2003-10-23 Sugar et al A1 16 20030224741 2003-12-04 Sugar et al A1 17 20040028003 2004-02-05 Miller A1 18 20040028003 2004-02-12 Diener et al A1	Cite.No. Pub. No. Date Typertent A1 370 1 20030123420 2003-07-03 Sherlock A1 370 2 20020086641 2002-07-04 Howard A1 455 3 20020155811 2002-10-24 Prismantas et al A1 455 4 20020142744 2002-10-03 Okanoue et al A1 455 5 20020177446 2002-11-28 Bugeja et al A1 455 6 20020050012 2003-03-13 Black et al A1 455 7 20020019214 2002-02-14 Brown et al A1 455 8 20020085503 2002-07-04 Hulyalkar et al A1 370 9 20020154614 2002-10-24 Jagger et al A1 375 10 2001008837 2001-07-19 Takahashi A1 455 11 2002006799 2002-06-20 Rappaport et al A1 702 12 2002006799

Signature

Examiner Name	Date
WILLIAM CUMMING	6/8/06
PRIMARY EXAMPLES	



APPLICANT(S):

COGNIO, INC.

101 ORCHARD RIDGE DRIVE, SUITE 350 GAITHERSBURG, MARYLAND 20878

LIST OF PATENTS AND FUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.: Cogn SERIAL NO.: 10/

Cognio109US 10/717,852 Diener et al. GROUP ART UNIT: 2681

FILING DATE: November 19, 2003

TODAY'S DATE: March 14, 2004

FOREIGN PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Country	Class/Subclass	Translation (Yes or No)
Initial	JP 2000-022712	01/21/2000	Japan		Yes, Partial

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

*Examiner	Author, Title, Date, Pertinent Pages, Etc
Initial	<u>.</u>
1,	Monks et al, "A Power Controlled Multiple Access Protocol for
/// BA	Wireless Packet Networks, 2001, IEEE Infocom 2001. Do Nonth Cisto
10	Vaduvur Bharghavan, "Performance Evaluation of Algorithms for
/ BB .	Wireless Medium Access," 1998, IPDS. No Month LISTED
111	Garces et al., "Collision Avoidance and Resolution Multiple Access for Multichannel Wireless Networks," 1997, IEEE Infocom. LO MONTH
/VU _{BC}	for Multichannel Wireless Networks, 1997, IBBE INTOCOM: 1997, IBBE
	Howitt et al., "Coexistence in the 2.4 GHz ISM Band," unknown
BD	Publication date. Cisco, "New Product: CiscoWorks Wireless LAN Solution Engine
11	Cisco, "New Product: Ciscoworks wifeless into Soldand and Soldand
BE	Software Version 1.0," July 19, 2002. Joe McGarvey, "Wi-Fi Moves Into Management Stage," July 19, 2002.
11	
//VBF	Wildpackets Inc., "A Wildpackets Academy Tutorial; AiroPeek and
. 1	Wildpackets Inc., A Wildpackets Noddomy Indiana Rogue Access Points," Wireless Security: Identifying and Locating Rogue Access Points,"
11/20	
/// BG	The second to the second to the second the second to the s
4.6	Approach and Impact 1. " May 1998, Proceedings of the IBBD ventual
$\mathscr{N}_{\mathtt{BH}}$	lm -11
	Dewayne Hendricks, "Is there Part 15 Congestion? Part II,"
\mathcal{M}_{BI}	-
	FCC, "Report: Second Meeting of FCC Technological Advisory Council
M/BJ	lam 11 22 20 2001
	FCC, "Report: First Meeting of FCC Technological Advisory Council
ВК	l
1	"Spectral Efficiency and Optimal Base Flacement
1111	for Indoor Wireless Networks," May, 1996, IEEE Southar on Selection
$//U_{\rm BL}$	Areas in Communications.

COGNIO, INC.

101 ORCHARD RIDGE DRIVE, SUITE 350 GAITHERSBURG, MARYLAND 20878

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.: Cognio109US GROUP ART UNIT: 2681
SERIAL NO.: 10/717,852 FILING DATE: November 19, 2003
APPLICANT(S): Diener et al. TODAY'S DATE: March 14, 2004

	Ti-it-rel
	Aegis Systems Limited, "Excerpt from Aegis Systems Limited:
	Chapter C Technical Factors Affecting Spectrum runningsmir.
BM	1.1 de a triban adoto un known
. /	Jon Peha, "Spectrum Management Policy Options," 1998, IEEE
\mathcal{U}_{BN}	a light and Currous VOI I NO. I.
BIN	Taken Magazie "Interference Characterization in Unitedisco"
\	National Information Infrastructure (U-NII) Band, "unknown
BO	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
	Stefan Pettersson, "Performance and Implementation Aspects of
	Stefan Pettersson, "Performance and Implementation deposition," Wireless Indoor Communication Systems with Local Centralization,"
	April, 2000, Dissertation submitted to the Royal Institute of
$\mathscr{U}_{\mathtt{BP}}$	April, 2000, Dissertation Submitted to the hoje and
BP	Technology. Tim (002 11b) and Bluetooth™: An
11	Mobilian Corporation, "Wi-Fi™ (802.11b) and Bluetooth™: An
BQ	Examination of Coexistence Approaches, 2001. No Many H USTED
	Net@EDU, "Wireless Campus Working Group: Position Paper on WLAN
BR	Tabaasaaa Laattaa Hiikiii Wii Wii Wii Waasaa
. 1	Teles - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
\mathcal{D}_{BS}	
	Traco International "Interterence Solutions, implove collections
\mathcal{N}_{BT}	In a line Nov. manifeld " October 1. 2002, CDG Technology Polum:
-/- BI	Dewayne Hendricks, "Is there Part 15 Congestion?," June 28, 2000,
M _{BU}	1
7 -1 -1 -1	Ricardo Rodrigues et al., "On the Design and Capacity Planning of
\mathcal{M}_{BV}	1 - Minelage Notwork " 2000 Hillie Aso Mension S.
/ BV	Charles Jackson "Distributed Channel Assignment: The Hagedy Of
	the Commons, Oblers's Paradox, and Mad Cow Disease, " March 30,
11	loog our ECE Colloguium
BW	2001, GWU ECE Colloquium. Kevin Werbach, "Open Spectrum: The Paradise of the Commons," Notes Business Monthly Rept. Vol 19.
	November 20, 2001, Release 1.0, Ester Dysons Monthly Rept, Vol 19,
\mathcal{U}_{BX}	November 20, 2001, Release 1.0, Ester bysons harman
/BX	No. 10.
di l	Interlink Networks, "A Practical Approach to Identifying and
$\mathcal{M}_{\mathtt{BY}}$	Impositing Unauthorized SUV. Cards and Access Formes/
	Rodrigo Garces, "An Access Etiquette for Very-Wide Wireless
11	Bands," October 12, 1998, IEEE IC3N '98: Seventh International
$-1/_{BZ}$	a formultare
	Wengton "In Pursuit of A Wireless Bill of Rights," September
\mathcal{M}_{CA}	110 2002 Sportrum Management Working Group FCC-IAC, Pys 1 130
	"On the lise of Unlicensed riequency operation
1.1	Use Rule Evolution, and Interference Mitigation," January 18,
$//\!\!/_{\mathrm{CB}}$	2001, Adaptive Broadband.
CB	12001, 11000

EXAMINER

COGNIO, INC.

101 ORCHARD RIDGE DRIVE, SUITE 350 GAITHERSBURG, MARYLAND 20878

LIST OF PATENTS AND FUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.: Cognio109US GROUP ART UNIT: 2681
SERIAL NO.: 10/717,852 FILING DATE: November 19, 2003
APPLICANT(S): Diener et al. TODAY'S DATE: March 14, 2004

Micc	Jon M. Peha, "Wireless Communications and Coexistence for Smart Environments," October 2000, IEEE Personal Communications.
///	Spectrum Sharing Without Hitehato.
M_{CD}	Opportunities and Dangers," 1996, Proceedings of the Month (15780)
Z = 7 CD	
11	Wireless Data Networks," July 2001, IEEE Journal on Selected 12005
// CE	of Communications, Vol. 19, No. 7.
;	Durga P. Satapathy et al., "A Novel Co-existence Algorithm for Unlicensed Fixed Power Devices," September 2000, IEEE Wireless
CF	
	PCT Search Report from PCT application No. PC1/0303/13303 11100
$\mathcal{N}_{q_{\mathbf{G}}}$	April 22, 2003.

WILLIAM CUMMING PRIMARY EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through
citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s)



ELECTRONIC INFORMATION DISCLOSURE STATEMENT

Electronic Version v18 Stylesheet Version v18.0

> Title of Invention

Server and Multiple Sensor System for Monitoring Activity in a Shared Frequency Band

Application Number:

10/717852

Confirmation Number:

1708

First Named Applicant:

Neil Diener

Attorney Docket Number: Cognio109US

Art Unit:

Search string:

(6629151 or 6226680).pn.

US Patent Documents

Note: Applicant is not required to submit a paper copy of cited US Patent Documents

init	Cite.No.	Patent No.	Date	Patentee	Kind	Class	Subclass
M	1	6629151	2003-09-30	Bahl	B1	709	250
	7 2	6226680	2001-05-01	Boucher et al.	B1	709	230

Signature

Examiner Name	Date
WHI LIAMS CLASSAING	June 8, 2006
CONTRACTOR EVALUATION	

COGNIO, INC.

101 ORCHARD RIDGE DRIVE, SUITE 350 GAITHERSBURG, MARYLAND 20878

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO

Cognio109US

GROUP ART UNIT: 2681

November 19, 2003

SERIAL NO.: APPLICANT(S):

10/717,852 Diener et al. FILING DATE: November 19
TODAY'S DATE: May 21, 200

FOREIGN PATENT DOCUMENTS

Examiner	Document Number	Date	Country	Class/Subclass	Translation (Yes or No)
Initial	WO 03/028313 A2	April 3, 2003	PCT	H04L 12/56	
ВВ					

examiner

WILLIAM CUMMING PRIMARY EXAMINER

DATE CONSIDERED

June 8, 2006

^{*} EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s)

FORM PTO-144% (Modified)

Sheet 1 of 1

COGNIO, INC.

RCHARD RIDGE DRIVE, SUITE 350 GAITHERSBURG, MARYLAND 20878

LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.: Cognio109US

GROUP ART UNIT: 2681

SERIAL NO.: APPLICANT(S): 10/717,852 <u>Diener et al</u> FILING DATE: November

TODAY'S DATE:

U.S. PATENT DOCUMENTS

*Examiner Initial	<u>Document</u> <u>Number</u>	Publication or Issue Date	Filing Date (if relevant)	Name	Class/Subclass
	5,930,733	07/27/1999	03/25/1997	Park et al.	702/76
//AA	2003/0021237	01/30/2003	06/07/2002	Min et al.	370/252
AB	A1 2003/0050070	03/13/2003	03/14/2002	Mashinsky et	455/452
//_AC	A1 6,131,013	10/10/2000	01/30/1998	Bergstrom et	455/63
M AD		06/24/2003	11/12/1999	al. Kibria et al.	379/1.03
N AE	6,584,175 B1	06/24/2003	11,10,100		

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	774.0
*Examiner	Author, Title, Date, Pertinent Pages, Etc
Instial	
BA	Per Search Report III International
	BCT/US03/36866. / // // // // // // // // // // // //
СВ	

PAIMANG YAAMING MITTIME CONTRING RIAMINER

DATE CONSIDERED

* EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant(s)

WILLIAM CURLING PRIMARY EXAMINER

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

BLACK BORDERS	
☐ IMAGE CUT OFF AT TOP, BOTTOM OR SIDES	
☐ FADED TEXT OR DRAWING	
☐ BLURRED OR ILLEGIBLE TEXT OR DRAWING	
☐ SKEWED/SLANTED IMAGES	
☐ COLOR OR BLACK AND WHITE PHOTOGRAPHS	
☐ GRAY SCALE DOCUMENTS	+
☐ LINES OR MARKS ON ORIGINAL DOCUMENT	
☐ REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY	
□ OTHER:	

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.